

WHAT IS CLAIMED IS:

1 1. A method for assigning intelligent peripheral resources of a network,
2 comprising:

3 receiving a request for an intelligent peripheral service from a first
4 requesting element of any element in the network;

5 identifying an intelligent peripheral resource in response to the request;
6 and

7 assigning the identified intelligent peripheral resource to the first
8 requesting element.

1 2. The method of claim 1, further comprising:

2 grouping the intelligent peripheral resources into one or more groups;
3 forwarding the request from a first group to a second group if intelligent
4 peripheral resources of the first group that received the request is not sufficient to meet
5 the request.

1 3. The method of claim 1, further comprising:

2 grouping the intelligent peripheral resources into one or more groups, the
3 request being received by and assigned to a first group;
4 receiving an additional request in the first group for another intelligent
5 peripheral service from a second requesting element; and
6 assigning intelligent peripheral resource of the first group to the second
7 element if such intelligent peripheral resource is available in the first group.

1 4. The method of claim 1, wherein the intelligent peripheral resources are
2 supplied by one or more intelligent peripherals, the identifying step identifying one of the
3 intelligent peripherals that is able to satisfy the request, the assigning step assigning the
4 identified intelligent peripheral to the request.

1 5. The method of claim 1, wherein the request is received from a
2 packet-based media stream.

1 6. The method of claim 1, wherein the request is received from a
2 circuit-switched based media stream.

1 7. A concentrator for connecting intelligent peripherals to a network,
2 comprising:

3 at least one intelligent peripheral interface that connects one or more
4 intelligent peripherals;

5 at least one network interface; and

6 at least one routing device coupled to the at least one intelligent
7 peripheral interface and the routing device for selectively directing information from the
8 network to the intelligent peripheral.

1 8. The concentrator of claim 7, further comprising:

2 at least one processor for processing information from the network and
3 information from the intelligent peripheral; and

4 a memory for storing at least one of intelligent peripheral status, request
5 information, capability information and network information.

1 9. The concentrator according to claim 7, wherein the connection point for
2 connecting to the network uses one of packet-based or circuit-switched based technology.

1 10. The concentrator according to claim 7, wherein the connection point for
2 connecting to the network uses at least one of TDM, ATM, IP, SONET, X.25 and ISDN.

1 11. The concentrator according to claim 7, wherein at least one of the routing
2 device for directing information and the processor for processing information performs a
3 media format translation function.

1 12. A system for utilizing intelligent peripheral resources of a network,
2 comprising:

3 at least one device coupled with at least one first switch, the switch being coupled
4 with at least one other switch through the network;

5 at least one intelligent peripheral concentrator coupled with the first switch

6 through the network; and

7 at least one intelligent peripheral coupled with the intelligent peripheral
8 concentrator.

1 13. The system according to claim 12, further comprising:

2 at least one service control point connected to the switch through the network.

1 14. The system according to claim 13, wherein the service control point
2 directs telephone calls to the intelligent peripheral concentrator or to another network
3 resource.

1 15. The system according to claim 12, wherein the switch handles media
2 streams in TDM or packetized format.

1 16. The system according to claim 12, wherein the intelligent peripheral
2 concentrator performs media format translation between a packet-based and a circuit-
3 based technology, and between different packet-based technologies.

1 17. The system according to claim 12 wherein the intelligent peripheral
2 performs at least one of digit collection, voice and video playback, announcement
3 playback, voice and video recording, music recording and playback, collect call
4 processing, forwarding requests and information, pager notification and telephonic alerts.

1 18. The system according to claim 12 wherein the intelligent peripheral
2 concentrator performs a resource allocation function by determining the status and
3 capability of the intelligent peripheral resources and assigning a request to an intelligent
4 peripheral based on the determination.

1 19. The system according to claim 12, wherein the connections are at least one
2 of conventional telephone lines, digital transmission facilities, fiber optic lines, direct
3 serial/parallel connections, wireless connections, cellular telephone connections, satellite
4 communications, local area networks and intranet connections.

1 20. An apparatus for assigning intelligent peripheral resources of a network,

2 comprising:

3 a network interface; and

4 a controller coupled with the network interface that receives a request from
5 a network device for the intelligent peripheral resources, determines an availability of the
6 intelligent peripheral resources in response to the request and assigns the network device
7 to an intelligent peripheral resource based on the availability of the intelligent peripheral
8 resources.